

What is claimed is:

1. A vaporizer for an ion source for ionizing a solid source of an ion implantation apparatus, comprising:

5 a nozzle having a gas inlet port formed in upward orientation, said gas inlet port being located a predetermined distance downward from an upper end of an inner surface of a crucible for vaporizing the solid source therein.

2. A vaporizer for an ion source according to claim 1, wherein said predetermined distance of said gas inlet port from the upper end
10 of the inner surface of said crucible is approximately 1.1 mm when said crucible has an inner diameter of 26 mm.

3. A vaporizer for an ion source according to claim 1, wherein said solid source is arsenic.

4. A vaporizer for an ion source for ionizing a solid source of
15 an ion implantation apparatus, comprising:

a nozzle having a plurality of gas inlet ports formed in an upper portion of a crucible for vaporizing the solid source therein.

5. A vaporizer for an ion source according to claim 4, wherein the number of said plurality of gas inlet ports is two.

20 6. A vaporizer for an ion source according to claim 5, wherein said nozzle formed with said two gas inlet ports is branched from the center of said crucible such that said two gas inlet ports are symmetrically formed at approximately 45 degrees to the vertical central axis of said crucible.

25 7. A vaporizer for an ion source according to claim 4, wherein said solid source is arsenic.